RESPONSE TO COMMENTS
URCHINMOICS USA
CHANNEL ISLANDS URCHIN CO., FACILITY
TENTATIVE ORDER NO. R4-2022-XXXX
NPDES NO. CA0064696

Comment Letter dated March 17, 2022, from Channel Islands Urchin Co. (Discharger)

No.	Comment	Response	Action Taken
1.	**The Discharger would like to add a seaweed cultivation operation to the urchin cultivation operation.** I am asking for the board to consider allowing us to culture seaweeds in addition to sea urchins. During the drafting of this permit, an amendment to the application was requested, adding the culturing of seaweeds to the permit. I submitted this amended application to supplement our already submitted NPDES given comments made by staff that if our intent is to grow seaweeds at this facility under this application, with staff recommending that the application should be modified to include seaweeds as part of our application. As a restorative aquaculture company, we are engaged in many discussions and efforts by major university researchers, who are interested in developing restorative stocks of seaweeds to restore urchin barrens once the urchins have been removed. Staff indicated that seaweed is considered a new project and thus a CEQA review of this application is necessary if we moved forward with wanting seaweed added as an approved product. We withdrew seaweed from our application in order to allow the NPDES permit process to move forward. I would like the Board to take into	The Discharger reached out to staff asking to include a seaweed culture operation as part of the tentative order on December 10, 2021. Staff requested a revised permit application (or "Report of Waste Discharge" [ROWD]) that included the seaweed operation on January 5, 2022. The Discharger provided a revised permit application on January 7, 2022, including a schematic of the seaweed operation. However, there is no monitoring data available to evaluate the seaweed cultivation operation. Regarding CEQA requirements, staff reviewed the revised application and made a preliminary determination that the seaweed operations would constitute a new source, while the urchin operation was determined to be an existing source. The determination was provided to the Discharger on January 25, 2022. Based on this determination and information, the Discharger withdrew their request to add the seaweed operation on January 25, 2022. The Board can consider reopening the permit to add the seaweed operation at a later time, after receiving a revised ROWD and the necessary additional information and data concerning the proposed	None

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	consideration the following. The site where we are located was built by the City of Port Hueneme as an Aquaculture Park, with no limitations on which species could be grown there. The city went through all the environmental review processes in order to build and lease out the land within the Aquaculture Park. It is the interpretation of Regional Water Board staff, without reviewing any of the circumstances under which the facility was built and leased out by a public entity (the City) that adding seaweed to the application makes it become a new project and thus subject to a CEQA review. The use of seaweed will in fact make the water quality even better by removal of available nutrients from the system. All environmental reviews needed by the city in order to build and lease out these facilities within the Aquaculture Park were met at the time of construction. I am asking the Board to consider adding the culture of seaweeds to our application not as a new project but rather fitting under the broad category of aquaculture. Whether the site is used for Limpets as the previous tenant grew, or urchins as we are doing, or wanting to do seaweeds, this all fits under the Regional Water Quality Control Boards definition of Aquaculture. From the Boards own definition, the definition of Aquaculture is – Aquaculture means a hatchery, farm, aquarium, or other facility that contains, grows, holds, or studies aquatic animals or plants, …" , and since this definition lumps animals or plants together into one category, the inclusion of seaweed should not be considered a new project.	seaweed operation to make a final CEQA determination. Specifically, staff will need the location of the seaweed operation and its process flow diagram, the type and capacity of equipment to be used, and the wastewater treatment system to be used. Based upon available information, the seaweed operation would require additional construction and would be an entirely new building and process. Those facts are consistent with a New Source, which is an exception to the CEQA exemption in Water Code section 13389, which is cited in the Tentative Order: "The CEQA exemption cited in the ROWD application states, *'Neither the state board nor the regional boards shall be required to comply with the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code prior to the adoption of any waste discharge requirement, except requirements for new sources as defined in the Federal Water Pollution Control Act or acts amendatory thereof or supplementary thereto.'"* The seaweed cultivation operation would be considered a new source because it was not part of the process under the previous permit is not within the existing facility buildings and structures and will require new equipment. The potential for additional pollutants in the waste stream from this new source was not previously characterized as part of the Tentative Order. New sources are discussed in 40 CFR 122.29(b)(1). The U.S. EPA provides a	

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		Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category. It states that, "Construction at land-based sites such as flow through and recirculating systems occurs when ground is broken, new equipment is delivered, or other significant changes occur." Board issuance of the Order, as proposed, will allow the urchin operations to commence. An amendment to the permit is an appropriate vehicle to consider modifications to the facility to incorporate the seaweed operations in the future after the necessary information has been submitted, and staff have conducted the required analysis of the proposed seaweed operation.	
2.	**Request for mercury intake credits.** I would like the Board to consider allowance of intake credits for Mercury. In Section 4.3.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives a) Mercury, it states: "Los Angeles Water Board staff reviewed monitoring data during years of discharge (2017 through 2018) for the Facility as regulated under another owner. The monitoring data indicated a maximum result of 9.45 ng/L. Since the monitoring data was below the water column value of 12 ng/l, the Facility has not demonstrated reasonable potential." As an aquaculture operation, it is unreasonable to assume that an aquaculture operator is a producer or user of mercury as mercury bioaccumulates within tissues and is obviously a concern for us as well. There	Section 4.3.5. of the Fact Sheet discusses intake water credits. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP) Section 1.4.4. provides that intake water credits for a pollutant may be established in an NPDES permit based on a Discharger's demonstration that certain criteria are met. The criteria required to receive intake water credits are described in Section 1.4.4 of the SIP. The first criterion is not met, based on the data provided by the Discharger: "(1) The observed maximum ambient background concentration, as determined in section 1.4.3.1, and the intake water concentration of the pollutant exceeds the most stringent applicable criterion/objective for the pollutant." The maximum observed background concentration was 0.13 ng/L,	None

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	is no evidence that the previous owner, also an aquaculture operation referenced in the draft used mercury or produced these values referred to in section 4.3.2. It is likely that the mercury detected in the previous operation came from Hueneme Harbor itself. Hueneme Harbor is a closed harbor, with a large Navy presence and lots of commercial ship traffic coming and going, including squid fishing vessels which use the harbor to off load. While intake credits are given for ammonia, total residual chlorine, copper, silver and cyanide (Footnote C to Table 4), we feel that Mercury should be added as having intake credits. If it is already present in the incoming water supply, giving us intake credits for mercury is consistent with other intake credits due to the criteria listed for establishing those intake credits as listed in Section 4.3.5 (3) of Attachment F (page F-23). The only input we plan on putting into the urchins once in our tanks on the ranch is feed, which has been thoroughly tested by the manufacturer to meet US food safety standards and as such has to pass through customs ensuring it meets FDA standards as it is imported into the US from Japan. Hueneme Harbor having lots of ship traffic, which is out of our control, we should not be held responsible for mercury within those waters, brought onto the ranch and then tested for in our effluent. Just as the other credits given for constituents likely to be found within a small harbor, we request that mercury should be added to the list of intake credits.	which is less than the most stringent applicable objective of 12 ng/L.	

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3.	**Request for intake monitoring location to be used as the receiving water monitoring location.** I propose for Board consideration, to allow the use of an intake test, which is the same water as the receiving waters, in lieu of doing a separate receiving water test. That regulations say that both intake water and receiving waters should be tested on a schedule identified in the proposed permit, that those two sampling sites are 5' apart and are to be sampled at the same time, it makes no sense for us to spend the extra money to run duplicate tests. Within the proposed permit, it makes reference for the need to monitor three separate locations. In Table E-1. Monitoring Station Locations: it lists INF-001, EFF-001 and RSW-001. The location of INF-001 is fixed as a function of the infrastructure built by the City of Port Hueneme in the development of their Aquaculture Park. EFF-001 is also a fixed location with the infrastructure already in place from the previous discharger. In inputting the coordinates given for RSW-001, it is the same location as INF-001 as referenced in Section 4.3.5 Effluent Limitations for Copper, Silver, Cyanide, Ammonia, Total Residual Chlorine and Based on Intake Water Credits (Criteria 1). As a business that needs to be profitable to do the restorative work in the oceans by working to reduce urchin barrens, we need to look at every expense carefully. Even though the requirement for sampling RSW-001 is only once per year, it is a duplication of laboratory expenses that we should not have to incur since it replicates the data from INV-001 exactly as a sampling location and we would plan to have it sampled by the independent lab at the same time as a quarterly sample when INF-001 samples	Sampling of the receiving water is a standard requirement to determine water quality impacts from the waste discharged from the Facility and must be included in the Order. As noted under Table E-1 of Attachment E, the latitude and longitude information are approximate for administrative purposes. Given the limited accessibility to Port of Hueneme, the Discharger may use the influent monitoring location as the receiving water monitoring location as it is outside the influence of the discharge.	Revisions are made to the Tentative.

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	are taken. We request that INF-001 quarterly tests are used for the RSW-001 test.		
4.	**Attachment E – Section 5.3. Chronic Marine and Estuarine Species and Test Methods request for removal.** I request consideration by the Board to eliminate the need for chronic toxicity testing. In section 5.3. Chronic Marine and Estuarine Species and Test Methods, it lists the species needed to run a chronic toxicity test. An aquaculture facility is a huge bioassay in and of itself and probably better because of higher densities needed to make the facility work economically. The water quality of an aquaculture facility should be of sufficient quality to grow healthy animals under crowded and more stressful culture conditions and they are held under those conditions continuously for a longer period of time than a lab run toxicity test. The operation of the facility actually stands in as a toxicity test. Furthermore, one of the test animals requested in the chronic toxicity test is the same animal under cultivation on our ranch. It makes no sense to test for chronic toxicity given that we are already running this test continuously as part of our business. Again, to control costs in external laboratory testing, we request that this requirement be changed from a laboratory test to include a report that no chronic mortality is occurring on the ranch due to detrimental water quality and this stands in for as a replacement monitoring tool instead of the chronic toxicity test requirements.	Chronic toxicity testing is a standard requirement and must be done by a laboratory accredited through ELAP. The controls for the chronic toxicity testing must meet the requirements of the Test of Significant Toxicity (TST), as required by the U.S. EPA. Even if the purple sea urchin is determined to be the most sensitive species, the Discharger would need to get accredited and demonstrate that it meets the requirements of the TST controls. In addition, the Basin Plan specifies: *There shall be no chronic toxicity in ambient waters outside mixing zones. To determine compliance with this objective, critical life stage tests for at least three species with approved testing protocols shall be used to screen for the most sensitive species. The test species used for screening shall include a vertebrate, an invertebrate, and an aquatic plant. The most sensitive species shall then be used for routine monitoring. Typical endpoints for chronic toxicity tests include hatchability, gross morphological abnormalities, survival, growth, and reproduction.* While the Facility is an aquaculture operation for the cultivation of *Strongylocentrotus purpuratus*, one of the species identified in the Chronic Toxicity tests, survival of that species does not guarantee protection of other species. Therefore, the requirement for chronic toxicity of the most sensitive species identified in the initial screening is required.	None

Comment Letter dated March 18, 2022, from Heal the Bay

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1.	**An impact assessment with rigorous monitoring must be completed to identify any potential impacts for this initial project phase, and again if/when an increase in discharge rates is requested associated with a larger scale project phase.** The Permittee is proposing a new practice at a facility previously owned by Stellar Biotechnologies, which historically has had exceedances for both Enterococci and Fecal Coliform. To the extent that the Permittee is repurposing any equipment from the previous owners, there must be assurance that improvements will be made, as necessary, to reduce the potential for future exceedances. It is also critical that the impacts of this facility on our water resources are fully understood given the relatively novel practice the facility is proposing at this location. Rigorous monitoring must be included as part of the Tentative Permit requirements, to include weekly sampling for bacteria contamination, to fully understand the impacts of the facility. An impact assessment must be completed before the facility begins operation to inform the requirements of the monitoring plan. An additional assessment and monitoring plan update will be necessary if/when an increase in operations is proposed by the permittee in the future, as has been indicated in the Tentative Permit.	The tentative Order provides sufficient effluent limitations and monitoring to ensure protection of beneficial uses. The previous operation consisted of a flow through system. The proposed operation consists of a recirculating system. The Facility's Recirculation Aquaculture System (RAS) utilizes a drum filter to remove particulates down to 30-60 microns, a biological filter to covert ammonia into nitrates and UV sterilization. Water passes through treatment before discharge into Port Hueneme, thus providing a higher level of treatment than under the previous owner, to address the concerns about potential exceedances of Enterococci and Fecal Coliform limits. Additionally, the proposed Order implements the Bacteria Provisions per the Basin Plan. 40 CFR Part 451 Subpart A – Flow-through and Recirculating Systems Subcategory expresses technology-based effluent limitations as practices. The practices include solids control, which requires the Discharger to: a. Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the U.S.	None

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		b. In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting aquatic animals in the production system. c. Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except in cases where the permitting authority authorizes such discharge in order to benefit the aquatic environment. These practices shall be included in the Best Management Practice Plan (BMPP), which must be submitted to the Los Angeles Water Board within 90 days of adoption of the Tentative Permit. Staff has determined that the additional water treatment employed by the Discharger and BMPP requirements to control solids in the Tentative Order are sufficient for the protection of aquatic life.	
2.	**The tentative permit should require the Permittee to submit a Biodiversity Plan within 90 days following the permit adoption.** As part of the study discussed above to assess impacts of the facility, the Regional Board should also require the Permittee to develop a Biodiversity Plan that assesses impacts to the coastal ecosystem, to be submitted no later than 90 days following the adoption of the Permit. The Biodiversity Plan must be reactive to any changes in urchin populations to eliminate the possibility of	The Tentative Order regulates the Facility's discharge and its impact to the receiving water quality and beneficial uses in the receiving water. The sea urchin population, related biodiversity, and fishery management are under the jurisdiction of the California Department of Fish and Wildlife (CDFW). A limited-entry commercial fishery for sea urchins is under the licensing control of CDFW. The Discharger holds appropriate licenses in compliance with CDFW to ensure their harvesting practices are within the	None

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	overharvesting. It should also consider actions that minimize the possibility of this project propagating sea urchins to an extent that is detrimental to our kelp forests. This Biodiversity Plan must include, but should not be limited to, the following elements: a baseline assessment of urchin populations, a discussion of the impacts of that population on the coastal ecosystem, goals of the project that will improve biodiversity, an implementation plan and proposed timeline, and a monitoring plan to allow for adaptive management. Adaptive management must also be assessed annually.	proper regulations and the Facility procures the urchin from licensed commercial divers regulated by CDFW.	